

Applicant : Jordan T. Bourilkov et al.
Serial No. : 10/616,495
Filed : July 9, 2003
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Attorney's Docket No.: 08935-292001 / M-5028

Amendments to the Drawings:

The attached replacement sheet 1 of drawings includes changes to Fig. 1 and replaces the original sheet including Fig. 1.

In Figure 1, reference designation "housing, 11" was added.

Attachments following last page of this Amendment:

Replacement Sheets (11 pages)
Annotated Sheet Showing Change(s) (1 page)

REMARKS

Applicant has canceled the non-elected claims. Consonant with the election requirement, applicant has added new claims 26-41 directed to "A hybrid power supply." Claim 26 includes the features of an adapter comprising a member including appropriate mating fittings to allow the member to connect to a battery or a source of fuel for a fuel cell system for powering an electronic device, as claimed in claim 1. Claim 26 also includes a switching type DC/DC boost type converter coupled to the interface and which receives energy from a fuel cell or from an external battery connected to the interface, and which is arranged to deliver the energy to a rechargeable cell, the DC/DC converter configured to provide substantially constant current drain from the fuel cell.

In maintaining the original restriction, the examiner argued that the sub-combination had a separate utility.

The combination as claimed does not require the particulars of the subcombination as claimed because the subcombination requires a member including appropriate mating fitting that is not required in the combination. The combination requires only the interface in combination with, for example, a converter. The subcombination (i.e. the adapter) has separate utility such as a battery charger in the absence of an interface, a fuel cell or a converter. The requirement is still deemed proper and is therefore made

Newly added claims 26-30 are consonant with this reasoning since claim 26 recites the adapter as claimed in claim 1. Therefore, the combination does not have separate utility since it requires the particulars of the sub-combination and new claims 26-30 are properly joined in this application.

For analogous reasons, newly added claim 31 and claims 32-36 directed to hybrid power supply are consonant with the requirement, since it requires the particulars of the sub-combination and recites a fuel cell.

Objections

The examiner objected to the drawings as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description:

Applicant has amended the description to change the reference characters included in Figures 9 and 10.

The examiner also objected to the drawings as failing to comply with 37 CFR 1.84(p)(5) because they do not include "reference characters "11", as mentioned on page 3, line 18; "137", as mentioned on page 7, line 24; reference characters mentioned on page 13, line 10 through page 14, line 16."

Applicant has corrected FIG. 1 to include 11; 137 is not findable in the specification; and has amended the specification to correct the reference characters mentioned on page 13, line 10 through page 14, line 16 to be consistent with those shown in FIGS. 9 and 10.

The examiner also objected to the drawings as failing to comply with 37 CFR 1.84(p)(4) because

reference character "16", as mentioned on page 3, lines 19-21, has been used to designate both a door and rechargeable batteries; reference character "20", as mentioned on page 4, lines 7-8, has been used to designate both an interconnect and an interface; and reference character "32", as mentioned on page 4, lines 8-11, has been used to designate both mating fittings and interface port.

Applicant has amended the specification to delete "16" when referencing a battery and deleted "interface 20" and refer to the interface consistently as "interconnect 20," although either would be correct. Applicant has also corrected the usage of "32."

The examiner objected to the disclosure because of informalities, which have been corrected.

Claim Rejections - 35 USC § 102

The examiner rejected Claims 1 and 3-4 under 35 U.S.C. 102(b) as being anticipated by Sainsbury et al. (6,104,162). The examiner stated:

Claim 1: Sainsbury et al. in Figures 1, 2 and 6 discloses an adapter comprises a member (15) including appropriate mating fittings to allow the member to connect to a interconnect (20) that interfaces a battery or a source of fuel (41) to a fuel cell system for powering an electronic device (10) (col. 3: 25-col. 4: 26, and col. 5: 3-40).

Claim 1 as amended, distinguishes over Sainsbury, since the reference neither describes nor suggests an adapter including a member including appropriate mating fittings to allow the member to connect to a battery or a source of fuel for a fuel cell system for powering an electronic device.

Claim 1 is allowable over Sainsbury because Sainsbury teaches interchangeability of fuel cells and battery packs. Sainsbury discloses: "FIG. 6 shows a pictorial description of a preferred embodiment of the multifunctional battery module 19 including battery unit 41 consisting of one or a combination of battery and fuel cell units which individually or together provide complementary power to the tool."

However, applicant's invention is directed to "a member including appropriate mating fittings to allow the member to connect to a battery or a source of fuel for a fuel cell system." Thus, Sainsbury does not depict at least the member including appropriate mating fittings connect to a source of fuel for a fuel cell system. While the examiner can argue that inherently Sainsbury can provide mating fittings to connect to a source of fuel for a fuel cell system, claim 1 requires "a member including appropriate mating fittings to allow the member to connect to a battery or a source of fuel for a fuel cell system. Sainsbury does not show such a member to allow connection to a battery or a source of fuel.

Claim 3 and 4 are allowable over Sainsbury at least for the reasons discussed in the base claims.

The examiner rejected Claim 2 under 35 U.S.C. 103(a) as being unpatentable over Sainsbury et al. as applied to claim 1 above, and further in view of Bean et al. (6,955,863).

The examiner admits that Sainsbury et al. do not disclose the features of claim 2.

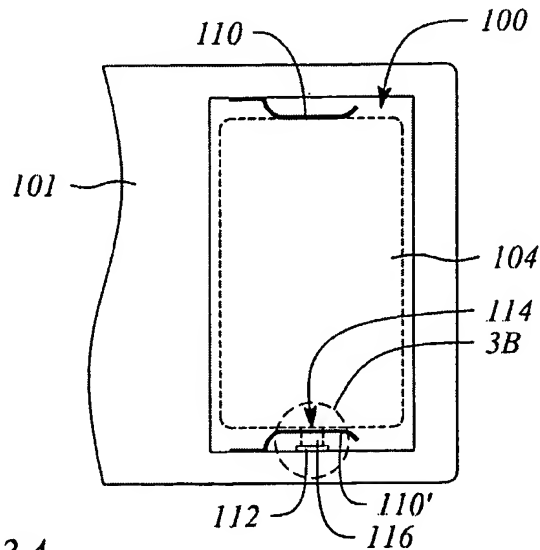
Claim 2 recites that: "the mating fittings on the member include a pair of spaced battery terminals and an aperture to receive an ingress port on a fuel cell interconnect." The examiner argues that:

Bean et al. in Figures 2 and 3 A disclose mating fitting on a member that a pair of spaced battery terminals and an aperture to receive an ingress port on a fuel cell interconnect.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the member and interface of Sainsbury et al. by incorporating the mating fittings of Bean et al. because Bean et al. disclose mating fittings that would have provided a portable electronic device with a power supply that may be interchangeably energized using energy stored in a battery or energy derived from the operation of a fuel cell, enabled the user of the device to flexibly determine during device use whether to employ the battery or the fuel cell as a power source, users of the device from having to provide for a particular one of a fuel cell cartridge or a battery when a currently installed battery or fuel cartridge becomes depleted thereby improving overall performance, efficiency and operations.

Applicant contends that the combination of Bean with Sainsbury fails to suggest the features of claim 2. Bean does not teach "the mating fittings on the member include a pair of spaced battery terminals and an aperture to receive an ingress port on a fuel cell interconnect," as the examiner argues. Rather, Bean discloses the arrangement shown in FIG. 3A reproduced below:

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In this arrangement, the compartment interchangeably holds either a battery or a fuel cartridge. However, Bean has only contemplated a compartment to receive conventional cells in which anode and cathode are on opposite ends of the battery. In contrast, Applicant's mating

fittings on the member include a pair of spaced battery terminals and an aperture to receive an ingress port on a fuel cell interconnect. No such member is disclosed by Bean.

Moreover the motivation to combine Bean with Sainsbury is inadequate because Sainsbury is not directed to an arrangement involving the source of fuel for a fuel cell. Therefore any combination of Sainsbury with Bean would have modified Sainsbury in a manner that destroyed to intent, purpose or principal of operation of Sainsbury and is per se not suggested. Accordingly, the claims are allowable over the art.

Double Patenting

The examiner provisionally rejected Claims 1-3 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-7 of co-pending Application No. 10/462,077.

Applicant will consider submission of a terminal disclaimer upon an indication of allowable subject matter.

No fee is believed due. Please apply any other charges or credits to deposit account 06-1050.

Respectfully submitted,

Date: _____

7/24/06

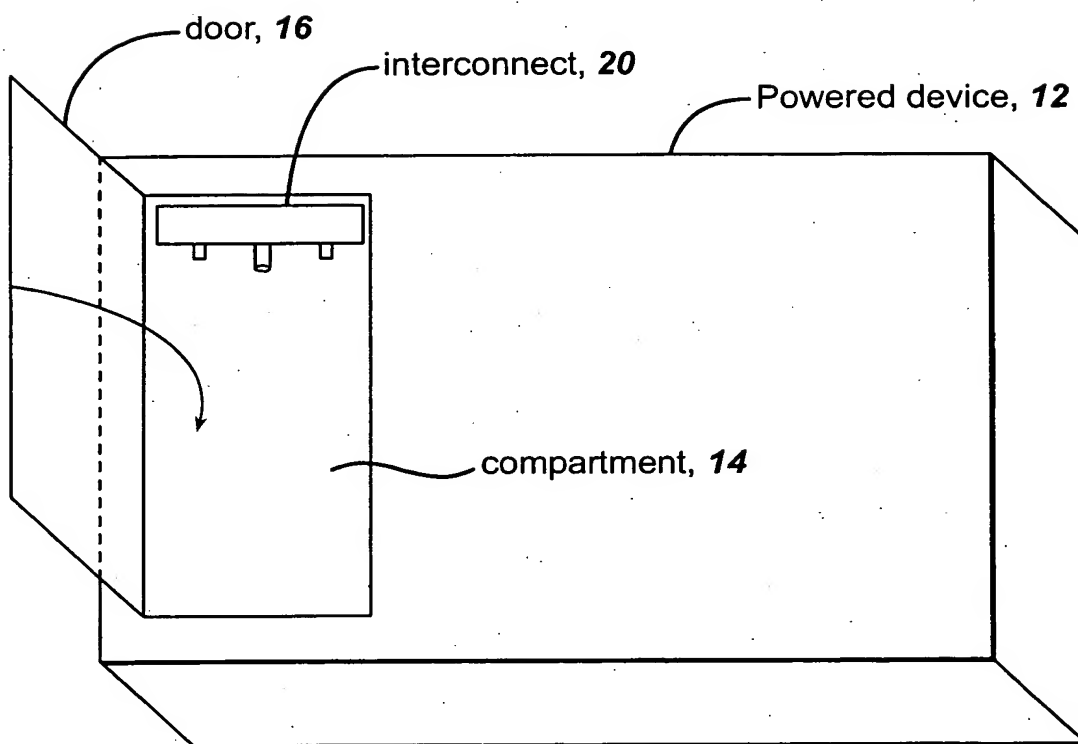
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1/11

FIG. 1



housing, 11